

S

NOTES OF
PRACTICE AMONG THE OUT-PATIENTS OF
ST. BARTHOLOMEW'S HOSPITAL.

By JAMES PAGET, F.R.S.

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THE out-patients' rooms of large hospitals are not places for the minute study of surgical science ; but they may provide a kind of useful knowledge which can be got nowhere else, unless in an extensive private or parochial practice. Some of this knowledge (or what seems to be so) I propose to publish in this and a few following papers. It may be they will contain nothing that is not familiar to the majority of those who have much surgical experience ; nevertheless, they may be useful to the larger number, whether practitioners or students, who have fewer opportunities of study ; and, although the statements made in them may have been chiefly founded on observations among Hospital-patients, yet I have, in nearly every instance, satisfied myself that they will prove true in private practice. If it be objected that the papers are desultory, disorderly, and fragmentary, the answer may be, that these were, unavoidably, the characters of the studies in which they had their origin, and which, if they were in these respects less faulty, they would less truly represent.

No. I.—ON SOME AFFECTIONS OF LYMPHATIC
GLANDS.

A form of Acute Inflammation of Lymphatic Glands often occurs, in which all the glands of a cluster appear to coalesce in one swelling, involving both themselves and the tissues between and about them, and accompanied with uniform induration, heat, and pain. The local cause of the disease is seldom evident : it is most frequent in those who are enfeebled by previous illness, or by defective food : its most usual seat is in the glands below the angle and base of the jaw, or in those behind and beneath the upper part of the mastoid muscle. In the former situation, the glands swell out to the level of the jaw, or beyond it, and may feel as if adherent to it ; in the latter, being bound down by the tough fascia, they are less prominent ; but, in both places, they make swellings of remarkable hardness, with a nearly uniform flattish presenting surface. The integuments over them are usually somewhat œdematous, but not reddened in proportion to the severity of the deeper inflammation.

In the progress of this disease, which is usually accompanied by sharp inflammatory fever, it is common to find one or two small suppurations, as if one gland in the cluster had suppurated, while the rest remained swollen and hard. The finger passing over the diseased part sinks in as it passes on some small yielding spot ; there is no distinct fluctuation, but a circumscribed softness.

It will be found, I believe, an excellent rule to puncture this soft place as soon as ever it is detected. Usually, after such an opening, the pain is quickly relieved, and the rest of the swelling gradually subsides, without any extension of the suppuration. The opening may be small (half an inch or less long), but may need to be rather deep. All that seems necessary is the discharge of even a few drops of pus, and then the leaving the part quiet, with warm moist applications over it. If such an opening be not made in due time, extensive suppuration is nearly sure to ensue, and greatly increase the duration and mischief of the disease.

The rest of the treatment of such cases must usually consist in giving bark, warm purgatives (if any), good food, and in applying warm poultices or water-dressing, and fomentations to the inflamed part, both before and after the puncture.

Suppuration of Strumous Glands.—The great number of strumous children, that come to out-patients' rooms with slowly suppurating cervical and other lymphatic glands, supply, I believe, evidence enough that the best plan in all such cases is to leave the suppuration to increase till the skin over it is so thin, that one might think that in a day or two spontaneous ulceration would ensue. The thinnest part of the skin should then be punctured with a small knife, so as to make an opening not more than two lines in length. Through this opening the pus should be allowed to flow out slowly: the abscess-walls should on no account be pressed. If the pus will flow in mere drops, it is well; if it stop altogether, no harm will follow. No more should be done than to cover the abscess with a soft poultice or with warm water-dressing, which should be removed twice or three times a-day. The abscess thus treated will slowly empty itself, as the inflamed and stretched skin slowly recovers its elasticity and contractile power; or if the little wound should heal before the emptying, it will in a day or two reopen; or, at the most, the puncture may need to be repeated. The advantage of the plan is, that the punctured skin does not ulcerate or slough, the abscess-wall does not inflame, and recovery ensues without disturbance of the general health, and with a scarcely visible scar. In the great number of cases that I have thus treated, I do not remember to have failed to obtain these advantages. Usually, the healing of the abscess is completed within three weeks,—in strong contrast, as to both time and manner, with the tedious healing and ugly scarring that often ensue when these abscesses are left to open spontaneously, or are opened widely with the knife or caustic.

The internal treatment which I have always employed in these cases when suppuration has taken place (and which, if any, will prevent its occurrence), is the giving of tonics, or iron, and good food. The medicines for children may be, according to the case, from two to five grains of the potassio-tartrate of iron, or from five to ten grains of the liquor cinchonæ, or a

drachm of the cod-liver oil, three times a day. The first I think best in ordinary cases, in which the characters of struma are well marked, and not complicated; the second appears best when with struma there is marked debility, drooping, deadly pallor, duskiness; and I think it is a very good plan to give the bark with lime-water: the third seems fittest when great emaciation exists. In all cases it appears useful to give occasional small doses of the hydrargyrum cum cretâ, with rhubarb or the sesquioxide of iron. I doubt whether iodine does good in any of these cases, unless in combination with iron.

Strumous Inguinal Glands.—Among the affections often wrongly classed with the syphilitic, is a form of suppuration in the inguinal glands, which is apt to occur in those that are enfeebled and of strumous constitution. The confusion of it with syphilis is probably due to its often occurring after gonorrhœa; but it is often seen with no such connexion, and when it does follow gonorrhœa, it is often so late after the cessation of the discharge, that we can only ascribe its occurrence to the general debility which gonorrhœa is apt to produce in weakly persons.

The disease may affect the glands both above and below the crural arch, or either of these sets separately; and the feature which most certainly distinguishes it from syphilitic glandular disease is, that the inflammation, which leads slowly to suppuration, appears to involve separately each gland, with its immediate investments. The glands are not collected, as in one inflamed mass; neither is there much external swelling, or much inflammation around the proper substance of the glands; but they lie separately swollen, and commonly the skin over each, though scarcely, if at all, elevated, appears as a separate small red patch. When suppuration ensues, each gland suppurates and opens separately, or with subcutaneous narrow tracks of communication with the rest. Thus, late in the disease, we may see one or both groins, with two, three, or more openings, leading to as many suppurating cavities or tracks extending under comparatively healthy skin.

In all the characters just described, this disease of the inguinal glands bears the admitted marks of usual, but not constant, distinction between syphilitic and strumous inflammation; of the former as leading to suppuration about the glands, the latter to suppuration in them. And, in correspondence with this, the usual characters of strumous inflammations are noticeable; such as the pale rosy redness of the inflamed integuments, the thinness of the pus, the general tardiness of both the suppurating and the healing process.

The best treatment appears to be, when suppuration has not yet ensued, the giving of iodide of iron, in doses of about a drachm of the syrup thrice daily, with occasional aperients, good food, and the constant application of warmth. If the glands have suppurated, each, when the skin is thin or feels undermined, should be punctured with a small knife; and the

pus may be allowed to flow out slowly without pressure. The general treatment after puncture may be the same as before; and if the abscess-cavities appear very tardy in healing, lotions of nitrate of silver should be dropped into them, or, if there be sinuses, they should be injected with solution of iodine. Complete rest is not necessary; the general advantage of moderate exercise in the open air is greater than the injury done by moderate movements of the groins.

I know no disease in which the iodide of iron does so much good as in this; and it appears better than any other preparation of either iodine or iron, and better than bark in any form.

Cancerous Lymphatic Glands.—Few diseases are so insidious in their early progress as primary cancer in the cervical lymphatic glands. Beginning like an ordinary hypertrophy or chronic inflammation of the glands, it may advance far without exciting much, if any, suspicion of its terrible nature. Then, as the swelling increases, and, if increasing rapidly, becomes softer at its most prominent part and covered with florid skin, the imitation of suppuration may be so close as to deceive the most practised touch. Puncture by mistake may now discover what is going on; but in some cases, it may only prolong the oversight; for suppuration may have taken place in the substance of a cancerous gland. I have even seen repeated collections of pus in a cluster of cancerous glands, emptied by repeated punctures, prolonging the belief that no cancerous disease existed, though other signs of its presence seemed distinct.

I cannot tell how this error of diagnosis may be always avoided; but the following may be useful helps. In patients of middle or older age, all enlargements of cervical glands, that are not evidently inflammatory or sympathetic, should excite some suspicion of cancer. The suspicion should be the greater the older the patient is. It must be increased, if the glands affected are under the upper part of the mastoid muscle, and still more if they are under the middle of the muscle. It is a bad sign when they form a close compact cluster, or when, after puncture, the swelling does not at all subside: and equally bad when the swelling, as it increases, becomes less moveable. The harder the glands are at first, the more they must be feared; and the probability of cancer is greatly increased if the patient loses weight and strength, or is a member of a family in which cancer has occurred.

The difficulty of diagnosis which is here referred to occurs most commonly in cases of primary cancer of the glands: but it may occur also in those of secondary cancer; for the disease in the glands may so predominate over the primary disease in the tongue, mouth, or jaws, that of this the patient may know little and say nothing. All these parts therefore should, in every case, be carefully looked to.

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NO. II.—ON SOME AFFECTIONS OF THE MOUTH
AND FAUCES.

Enlarged Tonsils.—There is a physiognomy by which the children and young people that have simple enlargement of the tonsils may usually be known at once. Together with a general appearance of feeble health, they have a peculiar shape of the mouth and jaws. The jaws are narrow, so that the teeth are crowded and look disproportionately large. The aperture of the mouth is small, habitually slightly open; the edges of the lips thick, but not pouting, the lower lip rather inverted; the angles of the mouth a little raised; the front of the mouth is almost uniformly convex; the lower lip scarcely recedes towards the chin, but projects with a broad convexity, as if its middle part were slightly pushed forward by the tip of the tongue. The general expression is that of a gradual narrowing and a smooth uniform rounding of the lower part of the face, which make it look small and featureless.

These peculiarities of shape appear due, partly to defective growth of the jaws, and partly to the habit which the patients have of advancing the lower jaw and tongue, in the position in which these parts are yet more evidently held during acute inflammation of the tonsils.

Supernumerary Tonsils.—I have twice seen a supernumerary tonsil (or what looked exactly like one) under the mucous membrane of the back part of the pharynx. One of the patients was a child, eight years old, with enlarged tonsils. Behind the mucous membrane, in the median line of the back of the pharynx, there was a firm, circumscribed oval mass, about half-an-inch in chief diameter, feeling exactly like a tonsil, and covered with healthy, but granulated mucous membrane. The other patient was a lady, twenty-five years old, in whom a similar swelling, exactly like a tonsil uplifting the mucous membrane of the pharynx, was situated just behind the right posterior arch of the palate. Six months after I first saw it it was scarcely discernible.

I have not had an opportunity of proving, by dissection whether my belief that these swellings were tonsils is well-founded, and I am not acquainted with any description of supernumerary tonsils. But when we consider the varieties of size which the ordinary tonsils present, independent of disease, in different persons, and the still greater differences of development of the similar follicular structures at the root of the tongue, we may believe that few organs are more likely than the tonsils to have outlying masses of structure like their own in their close neighbourhood.

Excision of enlarged Tonsils.—For chronic enlargement of the tonsils, whether through simple over-growth or in consequence of chronic inflammation, the excision of the projecting portions seems by far the best treatment. So far as I have seen, the cutting of tonsils is never followed by severe hæmorrhage or other serious inconvenience, provided they are not inflamed at the time of being cut. And I believe that if other means of reducing the size of enlarged tonsils be not quickly beneficial, the excision should be adopted both oftener and earlier than it commonly is. One frequently sees cases in which delay in operating has given time for the occurrence of the incurable “chicken-breast”-deformity of the chest, which Dr. Warren pointed out as a common result of the habitual hard breathing of children with enlarged tonsils.

The double vulsellum and common probe-pointed bistoury are, I believe, the most advisable instruments for this operation, because, among other reasons, they are equally fit for all cases. There are certainly some cases for which even the most improved guillotines are insufficient instruments; those, namely, in which the enlargement of the tonsil extends so far down by the side of the pharynx, or up towards the soft palate, that a fair portion of the disease cannot be taken within the ring or loop of the guillotine. For these broad-based enlarged tonsils, the knife alone is applicable; and, to remove them effectually, it is advisable to have a facility which will hardly be possessed if the knife be used for them alone, but which the hands accustomed to the cutting of common enlarged tonsils will seldom lack. The general direction for the operation must be to cut from below upwards, the blunted point of the knife being carried well backwards, and its edge just internal to the posterior arch of the palate.

Salivation.—Cases of salivation usually recover more quickly and more favourably among out-patients than among in-patients; for the freer exposure of the former to the outer air

seems to do even more than compensate for the want of the comforts provided for the latter in the Hospital wards. I have, indeed, seen no cases of the severest salivation among out-patients, probably because I have never prescribed large quantities of mercury, and have never had the mishap of falling in with those whom even small quantities will severely affect. Among out-patients, no treatment of salivation has seemed so rapidly beneficial as that of giving saline purgatives (such as a Hospital mixture, with a drachm of sulphate of magnesia and ten drops of diluted sulphuric acid, three times a-day), and washing the mouth frequently with a gargle containing either one or two grains of sulphate of copper in the ounce of water. Almost always, in three or four days of such treatment, all the severity, if not all the appearance, of the salivation is gone. Very free action of the intestines should be induced and maintained; for, except renal disease, nothing appears more favourable to the bad influence of mercury than constipation. It will be observed as having preceded nearly all unexpected or too severe salivations.

I have been told that the internal use of small doses of sulphate of copper is as beneficial in salivation as its external use; but in a few trials which I made with it, it appeared without influence.

Perforating Ulcers of the Palate.—Inherited Syphilis.—Cases are not very rare in which all the appearances of a tertiary syphilitic disease are seen in persons who have never had primary syphilis, and some of whom have never had sexual intercourse. Among such patients, I have seen cases of ulceration and necrosis of the bones of the skull, of iritis, of phagedænic ulcers of the extremities, the tongue, the palate, and the pharynx, which I could not by any characters distinguish from the ordinary tertiary diseases of the same parts, but which were certainly not preceded by any primary symptoms in the patients themselves.

I believe the explanation of such cases to be, that the patients were born of syphilitic parents, from whom they inherited a taint, of which the manifestation was delayed or renewed many years after the ordinary times of appearance of inherited syphilis. In some instances, I have known that the parents of such patients were syphilitic after marriage, and, in some, that the patients themselves had had infantile syphilis, from which they appeared to have completely recovered for ten or twenty years before the disease resembling tertiary syphilis appeared.

This manner of the appearance of inherited syphilis is not commonly admitted or thought of. And yet it is a very probable one, being much more according to the general rules of the inheritance of diseases, than is the almost unique method which is evident in infantile syphilis. Gout, phthisis, insanity, cancer, and other diseases, when they pass by inheritance, very rarely appear in infancy or early childhood; the general law of these inheritances is, that the manifestation of disease in the offspring should appear at or near the same time of life as in the parent. The transmission of syphilis is rarely according to this rule; but we should expect that the rule would, sometimes, be so far observed as that the disease should not appear till puberty or later; and such an accordance with the general rule is, I believe, exemplified in the instances above referred to.

Among the diseases which I am disposed to refer, in some cases, to this inheritance and late manifestation of syphilis, is a form of perforating ulcers of the soft palate which, I believe, has been too little noticed. It occurs most frequently in girls and women, especially (but not exclusively) in those who are ill-fed, or, from other causes, anæmic. It is sometimes associated with destructive ulceration, like that of lupus, in the nasal cavities, or fauces, but is more frequently the sole local disease. In some patients it follows other manifestations of syphilis; but in the majority no history of syphilis can be traced.

The edges of the ulcer, in any of these cases, are sharp and abrupt. They, and its base, are covered (while it is in progress) with an ashy or yellowish layer, as if with a superficial slough, and they are surrounded by a bright red area of highly vascular mucous membrane. The progress of the ulcer is scarcely painful; but in one or in two weeks it may perforate the whole thickness of the palate, boring a round or oval hole through it, or (if reaching its posterior border), making a wide gap, or destroying some of its border, or of the uvula. The borders of the ulcer are not indurated, and it heals with a smooth, thin-edged, glistening scar.

As I have already said, it is not pretended, and cannot be proved, that such ulcers of the palate as these are always, or generally, due to inherited syphilis. But in some cases I believe they are so; and the belief is strengthened by their being so generally curable with iodide of potassium, which leads to their speedy healing, just as it does to that of the known tertiary syphilitic ulcers, and as it does not to that of the ulcers due to lupus, or to tuberculous or strumous diseases.

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No. III.—ON SOME AFFECTIONS OF VOLUNTARY
MUSCLES.

Consequences of excessive exercise.—The worst of these consequences has of late years been largely illustrated in essays on "Progressive Muscular Atrophy." Some of the cases of this affection seem clearly due to overwork of muscles, the atrophy beginning in those that are chiefly employed in the patient's daily labour, and gradually extending to the groups of muscles that are auxiliary to their actions. But it is of certain less serious and less considered consequences of excessive exercise that I now write.

Among these consequences the most frequent are muscular pains, which the patient usually describes as rheumatic. The shoulders, or the loins, or a limb, are complained of as the seats of constant, wearing, dull pains; they are weak and stiff, and unfit for work. The description is sufficiently like that of rheumatism; a history of exposure to cold is seldom wanting among out-patients; and the diagnosis and treatment of rheumatism are soon written down. Happily, the tired muscles, by their pain, generally secure their own repose, and their proper remedy.

One set of cases of this kind deserves especial mention, because they are, I think, very generally overlooked. I mean the cases of constant pain and weariness of the lower limbs associated with flat-foot. Among the numerous instances of this that I have seen in the out-patients' room, I do not remember one in which the patient was aware of his deformity, or did not give an account of himself that was calculated to mislead. The common story is, that he has heavy aching pains in one or both of his ankles, or in his feet or soles; pains extending up the limbs, with weariness, and inability to go through his day's work. And all these or more he ascribes to cold or to some injury; he has no suspicion of a deformity, but his feet are *flat*. The soles are, perhaps, not everted; there may be no true valgus, but the feet look elongated, flat, and low, without insteps; the heels are too little prominent, the plantar arches sunken, the ankles thick, the astragalus, navicular, and inner cuneiform bones are below their right level. The pains complained of are those of the muscles and tendons, which are habitually overworked, in the task of keeping the body erect, when its proper bearings on its supports are disturbed; and the like pains may exist in any case in which the foot is habitually used awkwardly.

The treatment of such cases with orthopædic apparatus is generally sufficient for the relief of the pain; rarely so for the cure of the deformity. With such apparatus, and often without it, as the patients (who are generally between 15 and 20) grow older, the muscles and other structures become accustomed and more adapted to their undue action, and cease to be painful. Many men above 30 who are flat-footed make no complaint of it. The most flat-footed I have seen could walk thirty miles in the day without considerable fatigue.

In all these cases the pain is probably due to the impairment of composition, which ensues in the muscles during exercise, becoming, at last, greater than can be repaired in their ordinary repose, or when the general health is enfeebled. Pain of a much severer kind, but probably due to a similar condition of unrepaired change of composition, is sometimes consequent on excessive work continued for a comparatively short time.

A feeble lad, 17 years old, complained of pain in his right arm, especially in the lower part of the biceps, and in the flexors in the forearm. He held his arm bent at the elbow, and nearly straight at the wrist, and he said he could not move it; but he could do so, though feebly and slowly, as if the muscles, though not cramped, were stiff. All the joints could be moved in their full range, smoothly, and without pain. There was no swelling anywhere, but the biceps and flexor muscles felt unequally firm, and some parts of them felt nearly hard, like muscles with the cramp. There were no signs of constitutional disorder, and the only cause that could be assigned for his pain and other trouble was that he had been working for five months as a smith, hammering for ten hours a-day. Rest alone, I believe, cured him.

Sometimes a muscle after excessive exercise passes into a state of nearly fixed contraction, and abides long therein. Wry-neck may thus follow a great exertion of the muscles of the neck; and I have seen an elbow-joint stiff and motionless through rigidity of muscles ensuing in or quickly following a great effort. These cases are to be distinguished from those of rheumatism, which, in persons disposed to it, is often localised in a muscle shortly after it has been subjected to a too wide or violent action. And it would be very interesting to study the similarities between the stiffness and loss of power in exhausted muscles and the rigor mortis; they are much greater, I believe, than would be generally suspected.

Some of the consequences of blows and the like injuries of muscles—A blow on a muscle or on its nerve may be followed by complete wasting. For example:—I have seen a case of total atrophy of the abductor indicis and adductor minimi digiti, which followed a sharp and very severe blow in front of the anterior annular ligament.

*A case of wasting of
extensor brevis from a blow
on the foot. 3. 8. 81.*

After a severe injury to a joint, the muscles acting on it may pass into a state of fixed contraction, or may start into

contraction at any effort to move them, whether actively or passively. The joint thus stiffened is likely to be regarded as one that has been wrongly treated; the fracture or the dislocation, if either have occurred, may be thought to have been left unreduced, and an incurable ankylosis may be talked of. But the stiffness of the joint is due to the muscles alone; and if, by giving the patient chloroform, they be relaxed and put beyond the influence of his will, the joint becomes at once naturally moveable, or nearly so. I have seen this condition at the elbow, the knee, and the hip; and I believe that I have known a similar affection of the muscles of the neck, causing temporary immobility of the head, after a blow on the vertex.

The patients are generally young persons, and the history of one may suffice; for all the cases were very similar in their results, however different in the accidents.

A boy, 10 years old, fell on his elbow and broke off the external condyle and adjacent portion of the articular end of his humerus. The arm was kept at rest on a well-padded angular splint, and union took place in the usual time, but the broken condyle remained prominent. He regained some power of movement of the elbow, but, apparently through neglect of the rules for using it which his Surgeon gave him, he gradually lost this; and when I saw him, five months after the accident, (a) the elbow was almost perfectly stiff at an angle of about 120° .

I took him into the Hospital, and he was put under chloroform, that the joint might be forcibly bent. But as soon as he was quite insensible the joint became easily moveable through an angle of fully 90° , and only just short of complete flexion and extension. As soon as he recovered from the chloroform the joint became as fixed as before in the extended position; it gradually became more stiff as he became more sensible and his muscles less relaxed.

The power of voluntary motion of the joint was gradually regained, with the help of frequent passive motion and the patient's own efforts.

The treatment here used will, I believe, usually be sufficient. Chloroform, which may first serve as a test of the state of the joint and muscles, may afterwards be used, to give opportunity for painless and free motion of the joint while the muscles are recovering. And their recovery may be accelerated by friction, warmth, passive motion to any extent that they will allow, and (which is far better) every possible effort of the patient's own will to move them.

Enlargement of muscles.—Inequality of size of limbs is far from rare, and in a large majority of cases it is due to defective nutrition of one limb, the other being of natural size.

(a) In this alone the case was peculiar; in all the other instances that I have seen the stiffness of the joint occurred very soon after the accident, or was continuous with its immediate effects.

But in some instances the smaller limb is natural (judging by its proportion to all the rest of the body except its fellow), and the larger limb is overgrown. I have seen at least four such cases, and in all of them the enlargement of the limb appeared due to overgrowth of muscles, with, perhaps, a dilated or varicose state of their veins.

In the case of a lad 14 years old, who had been very active in running and jumping, the calf of the right leg was an inch and a half larger in circumference than that of the left, and had been so for more than a year when I first saw him. At times also during the year it had become yet larger, with painful swelling, and a sense of great tension in it, nearly disabling him from exercise. But when these severer symptoms (which appeared usually to follow over-use of the limb) had subsided, no change of shape or structure could be felt. The leg, especially at the calf, only looked more grown and older than the other, or at most its veins were larger after exercise than those of the other leg were.

Six months later, with the help of an elastic stocking and regulated exercise, all pain and discomfort had ceased to be felt, but the disproportion of the legs remained.

In other two cases the patients were respectively about 25 and 40 years old, and these also suffered occasional pain and weariness in the muscles of the large calf; but in neither of these was there any reason to regard over-exercise as the cause of the enlargement.

In another case, in a soldier 27 years old, there was great enlargement of all the muscles of the right arm and shoulder, and such fulness of all its subcutaneous veins, and such a feeling of weight and tightness when it hung down, that I supposed the axillary vein must be obstructed. However, with rest in the Hospital, and the occasional application of leeches, the muscles gradually diminished, and the veins became less filled; and finally, during an attack of scarlatina, they returned to nearly their natural state.

I have had no opportunity of dissecting a case similar to any of these, and can only guess that there is a real overgrowth of muscles, like that which occurs in cases of excessively large tongues. There has been no apparent enlargement of bones, or any other structures than the muscles and veins, in any of the cases I have seen; and in this respect they greatly differ from the cases of hypertrophy of one or more fingers or toes which Mr. Curling chiefly has described.

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No. IV.—ON SOME AFFECTIONS OF THE URINARY BLADDER AND URETHRA.

I do not profess in any of these notes to record discoveries, or tell things which others do not know, but to relate such facts as, though known to many, are yet not enough known, and to recommend some modes of practice which many follow, and which should be followed by many more.

Diseases of children imitating the symptoms of vesical calculus.—A large majority of the children who, when brought to the Out-patients' room, are suspected of having calculus, have none. The imitation of the symptoms is sometimes so exact, that only very careful sounding can persuade one that no calculus is present. In other cases the imitation is less exact, yet sufficient to make sounding necessary.

The diseases that may be thus deceptive are various. The most frequent are the following :—

1. Phymosis, with contracted preputial orifice.
2. Nervous affections of the bladder, either with neuralgia, or with muscular irritability, or with both.
3. Similar affections dependent on disorder of the urine, or ascarides, or other distant sources of irritation.
4. Morbid growths in the bladder.
5. Tuberculous disease of the same.

Phymosis is a frequent cause of symptoms like those of stone, especially when the prepuce is not only long, but very narrow at its orifice. And it may give rise not to these symptoms alone, but to muscular hypertrophy of the walls of the bladder, dilatation of the ureters and kidneys, and other of the most serious consequences of urinary obstruction. In two young children, I believe that abnormal opening of the urachus at the umbilicus was the consequence of phymosis; for in one this defect was cured, and in the other relieved, by circumcision.

I need not say that phymosis and calculus may coincide. But the rule that these cases dictate is, that if signs of calculus exist, in a boy with phymosis, and no calculus can be detected, the phymosis should be cured at once. If no advantage be hence derived, some of the other probable causes of the symptoms may be again looked for.

The neuralgia and muscular irritability of the bladder, may, in most respects, be studied better in adults than in children. But it has been best observed in children, that irritable bladders become hypertrophied; and the likeness of this hypertrophy to that of bladders which have long acted against mechanical obstruction, makes it probable that, in these cases, though no cause of obstruction may appear after death, one existed during life. Such an obstruction may arise in discordant actions of the muscles of the bladder and urethra; and I believe that a close resemblance may be traced between many of these cases of irritable urinary organs, and the cases of common stammering. Just as stammering is evidently due, in great measure, to want of consent between the glottis and the expiratory muscles,—the glottis keeping close, or unsteadily opening and closing, during the intended expiration; so, in these stammering bladders (as they might be called) there is a want of consent between the expulsive and the permissive muscles, the latter not quietly relaxing, while the former are acting. Whoever will inquire closely will find that the influence of the mind, and of mental associations, and of interference with the general health, is in both disorders similar; and that the remedies for certain cases of irritable bladder must include, or chiefly consist in, such as are appropriate for vocal stammering. Moreover, in children and adults alike, the

remedy of this state is always the more difficult, the more the troubles are of purely nervous origin, and independent of local irritation.

The most frequent extrinsic local sources of irritation of the bladder are ascarides and morbid conditions of the urine. Their cure will commonly remove all symptoms of disturbance in the bladder.

Morbid growths are so rare in the bladders of children, that they had better not be suspected till the absence of all other probable causes of the symptoms of calculus has been proved. But how closely such growths may simulate those symptoms, and how difficult their diagnosis may be, is well illustrated in the cases of polypi of the bladder related by Mr. Cresse (a) and Mr. Savory. (b)

Far more numerous are tuberculous diseases of the urinary organs, and there are none that in children or, more rarely, in adults, may so closely imitate the symptoms of a calculus in an inflamed and ulcerated bladder. The main things to look for in the diagnosis, when a calculus cannot be detected, are the coincident tuberculous diseases of other parts, especially of the kidneys, testicles, and vasa deferentia, and, in adults, of the prostate and seminal vesicles. For tuberculous disease of the bladder alone is very rare, and equally so is the coincidence of calculus with persistent disease of any of the genital organs except the prostate.

All these diseases of children imitating the signs of calculus are more frequent before than after eight years of age. And even those which are not connected with the urethra are more common in boys than in girls; an evidence that the greater frequency of the disease of the male bladder is not to be wholly ascribed to the troubles into which it is led by diseases of the urethra and other sexual organs.

Accumulation of Urine.—Few diseases are likely to be overlooked for want of names, and, generally, medical nomenclature might be made clearer by decrease, rather than by increase, of its terms. But the state that I would call “accumulation of urine,” though well described by Hey, and well known to many surgeons, is yet, for want of a name of its own, unknown to many, and confounded by many with retention of urine.

A patient, unconscious of any disease in the bladder or urethra, finds himself becoming gradually more annoyed with fulness of the lower part of the abdomen, or with pain in the bladder, or too frequent action of it, or occasional incontinence of urine in the night. He is sure that he passes his full quantity of urine daily, and passes it with nearly full force, and little or no difficulty; and retains it easily, except, perhaps, at night; and yet we find the bladder distended. Then, if the bladder be emptied with the catheter, the power of passing urine remains apparently good. It appears to the patient, perhaps, nearly as strong and as complete as ever: but it is not complete: the bladder never quite empties itself, and each day more and more urine accumulates, till it is again as much distended as it was before.

I have known such a state to be the first overt sign of paraplegia; but much more frequently it portends nothing of the kind, and is an entirely local disorder. A case may best illustrate it.

An old man came, on his way to work. He said he thought his bladder must be full, and he had sensations of discomfort in and about it, and his urine-stream was rather less strong than usual; but he believed that he passed as much urine as was his custom. I found the bladder distended, and drew off sixty ounces of urine. Three days later, though he had passed, he said, large quantities, sixty ounces had again accumulated; in four days more, fifty ounces, with no discomfort, and scarcely any other sign of trouble in the bladder. And

(a) Treatise on the Urinary Calculus, pt. xx. fig. 2.

(b) Medical Times and Gazette, 1852.

thus the case went on, the accumulations gradually decreasing, till they were not more than thirty ounces in a week, and then some twenty or thirty ounces in a fortnight. At last, after about three months, the bladder recovered the power of completely emptying itself.

This case may be taken as a fair specimen of "accumulation of urine." The disease appears to be of the same kind with the fecal accumulations which one meets with in persons whose colon or rectum, without being paralysed, is at some part feeble, and who, passing feces daily, are unaware of the masses that day by day are accumulating in them. I think that a similar condition sometimes occurs in the stomach; and it may be impossible to explain the exact state of any of the organs thus able to act, yet not able to act fully. The muscular fibres are not paralysed; for to some extent, or for some time, they act well enough; but, in action, they seem to become prematurely weary, and thus, as they gradually contract less and less, they permit accumulation, till they may be paralysed by excessive elongation, or relieve themselves with some unnatural force.

Cases of accumulation of urine often show how much the secretion of urine is hindered by fulness of the urinary passages. We may guess at the amount of this hindrance from the quantities of urine that are secreted after the accumulation is withdrawn (and similar occurrences may be sometimes noted after the relief of a retention). One day I drew off eighty ounces of accumulated urine from a gentleman's bladder, and in the several days following there were secreted, and either evacuated or drawn off, 80, 75, 68, 70, 65, 65 ounces, varying in specific gravity from 1014 to 1018; and on each day in the next week about sixty ounces, of similar sp. gr. After this, the daily secretion fell to about fifty ounces, his ordinary average.

In the management of this disease, the bladder should be emptied daily, or as often as the accumulation amounts to more than twenty ounces. Generally, tonic treatment is useful: especially, I think, the sesquichloride of iron, in doses of forty or more more minims, does good. I think, also, that strychnine is useful; and, if the patients can bear it, cold sponging over the pubes and perineum should always be employed.

Strictures of the Urethra.—One of the best things about strictures to be learnt in an out-patient's-room is the value of medical treatment, and of rules of living, in alleviating the occasional urgencies of the disease, and enabling the patients to live in comfort and without catheters. Many good writers have urged the value of medical treatment in diseases of the bladder and urethra; but their advice is, in Hospital-practice, too often disregarded; and herein is one of the reasons, why there are no diseases in which so much better results are obtained in private practice than in that of Hospitals.

A great majority of the out-patients with stricture come for treatment only when they are worse than usual; and this worseness is generally due to intemperance, disordered digestion, cold, venereal excess, or unusual poverty. Of course every patient ascribes all his troubles to the stricture alone; although before it was thus aggravated, he had tolerated it for months or years. And if one is induced to pass an instrument at once, mischief is likely to be done; for the tissues at and about the stricture are probably inflamed, ready to bleed, or to be torn, or to become more inflamed, and more changed in texture. As a general rule, therefore, it is best never to try to pass an instrument for a stricture, on the first coming of the patient, unless he have an urgent retention of urine. The disorder to be treated is not mere stricture, but that condition (whatever it be) which aggravates the stricture; and the first object should be to bring back the stricture to the state in which the patient could tolerate it.

Generally, the aggravation seems to be due to a congestion, or inflammatory state, of the stricture alone or with the whole urinary tract. And how slight and transitory a change of this kind may suffice to make a stricture scarcely permeable, may be estimated from the slighness of the swelling of mucous

membrane which, in common coryza, will for a time completely hinder breathing through one of the nostrils.

Many of the out-patients who thus come with strictures aggravated complain of pain in the loins. They have headache, a furred tongue, and other signs of (I suppose) congested or inflamed kidneys. All these (unless there be something evidently contra-indicative) should be cupped on the loins. Whether such signs are present or not, the bladder is generally irritable, and the urine is high-coloured and scanty, smells strongly, and feels hot as it passes through the urethra. Alkaline and saline purgatives suit these conditions; and a good formula is, "Potassæ bicarbonatis ʒss., magnesiæ sulphatis ʒj., potassæ nitratis, gr. x. ter die." These should be given in diluted solution, and chloric or nitrous ether, or opium, may be added. A grain of calomel and a grain of opium should be given every night for three nights; or, if the patient be well-fed and gluttonous, ten grains of calomel should be allowed to act before any other medicine is given.

All patients thus suffering are relieved by warm baths. Their diet should be strictly ordered, and, as a general rule, all strong drinks should be forbidden; for the poor have none that are not injurious in such cases as these.

The cases of stricture that should be thus treated make up, I think, about nine-tenths of those that come to out-patients' rooms; and the general result of such medical treatment is, that within a month, or often within a week, the patient reports himself "well," or "much better," or "as well as he has been for years past." The surgical treatment of the stricture may now be safely undertaken; but, generally, the patient thus far relieved is content; and he may be so, if he will observe prudent rules of living. I believe that permanent good is very seldom done by the instrumental treatment of "tolerable" strictures in out-patients; and I am sure it is an error to regard stricture as a disease which has a natural tendency to increase. Left alone, and with well-managed general health, an urethral stricture, if not extremely narrow, will remain unchanged, or become gradually less. Many prudently living men can testify this,—men who had strictures "years ago," which now never trouble them, though they never pass instruments. On the other hand, no instrumental treatment, unless it be the perineal section, will prevent the increase of strictures in those who will not live prudently.

Retention of Urine.—What has been said about the management of strictures may apply to the greater part of the cases of retention of urine connected with stricture. There should be no long, or various, or forcible, attempt to pass catheters. Even if the bladder is thus emptied, the patient is most likely to come to the Hospital again in the evening, or next day, with renewed and worse retention, the stricture aggravated by the swelling that follows the passing of the instrument. In this way, success with the catheter is often as mischievous as failure.

It is a good rule, in any such case of retention, to desist from catheterism as soon as blood flows in more than a few drops. Such bleeding implies either congestion of the urethra which proper treatment will remedy, or else a wrong route taken by the instrument.

The best plan is to admit the patient, if possible; for the things to be done in cases of bad retention are such as few of the poor can manage. The patient should have a warm bath and a warm bed, and, generally, opiate enemata, or chloroform, or local depletion, or, in some cases, the sesquichloride of iron. The time that may be spent in using these things must vary according to many circumstances, such as the duration of the retention, the tension of the bladder, the sufferings and general illness of the patient. But the cases are very few in which it is necessary to perform any operation in less than twelve hours from the admission of the patient; and, on the other hand, if he be not relieved without operation in less than twenty-four hours it will, generally, be unwise to wait longer.

NOTES OF
PRACTICE AMONG THE OUT-PATIENTS OF
ST. BARTHOLOMEW'S HOSPITAL.

By JAMES PAGET, F.R.S.

Assistant-Surgeon to the Hospital.

No. V.—ON THE DIAGNOSIS AND TREATMENT
OF ULCERS OF THE TONGUE.

IN this, and in the following paper, I propose to give the results of observations, made chiefly in the out-patients' room, on some of the diseases of the tongue, and especially in relation to the diagnosis of those of its mucous membrane.

And, first, of ulcers of the tongue:—they may be thus classified:—

1. Simple. *a.* From superficial inflammation. *b.* From constant irritation, as by a rough tooth.
2. Aphthous.
3. Mercurial.
4. Syphilitic; *a.* superficial; *b.* deep; *c.* inherited.
5. Strumous.
6. Cancerous; *a.* superficial, or papillary; *b.* deep or massive.
7. Tuberculous.

1 (*a.*) Simple superficial ulcers of the mucous membrane commonly occur, with a general florid bright congestion of the surface of the tongue, in dyspeptic people, and those who habitually eat and drink too much. They are usually small, superficial ulcers or abrasions, very sore and sensitive, with no definite shape or plan. They are not likely to be confounded with any other ulcers, unless with the superficial syphilitic. From these they differ in their acute course, in their being about the tip, rather than the sides of the tongue, and in the active congestion of the mucous membrane which is generally associated with them, and only seldom, or as by accident, with the syphilitic.

The obvious remedy of ulcers of this kind, when they are due to excess, is reformation of diet and active purging. If they survive these, they should be touched with nitrate of silver. When they are only occasional consequences of habitual dyspepsia, the same local means will be useful, but, of course, they cannot be finally cured except by the remedy of the dyspepsia.

When these ulcers occur at or near the frænum of the tongue, they are sometimes so small that they are apt to be

overlooked; yet they are extremely painful, and may endure long, or frequently recur.

1 (b.) Ulcers of the tongue, due to the irritation of rough or sharp-edged teeth, vary much in appearance, according to the general condition of the patient, their date, and many other conditions. They may be like rough excoriations, with shreddy foul bases and borders, ill-smelling, surrounded with swelling, and a sodden, but not hardened, state of the tongue. Or, with similar general characters, they may extend deep into the tongue; the surface of the tongue, and of the adjacent part of the gums, being in both of these cases covered with a thick creamy or pasty layer. Or, again, while the rest of the tongue may be nearly healthy, the ulcer of more chronic progress may be well-defined, regular, clean at its base, with upraised, rounded, and hard "callous" borders.

Due regard to the teeth will usually determine both the diagnosis and the remedy of these ulcers. But, it must be noted, that so long as the general health and digestion are good, the tongue may tolerate without damage the irritation of rough teeth. Patients, therefore, knowing that their teeth are not unusually bad, will ascribe the ulcer of the tongue to any cause but them; and, even after the removal or smoothing of the teeth, the ulcers may not heal till the general health is improved. And, again, cancerous disease may be determined to a particular portion of the tongue by the constant irritation of a tooth; and extraction will only for a time diminish the activity of the disease.

2. Aphthous ulceration of the tongue may scarcely need description, for its frequency in children may make it easily known when, more rarely, it is seen in adults. With general heat, increased secretion of saliva, and general redness of the mucous membrane of the tongue, (the lips and gums also commonly participating,) aphthous ulcers appear as small, flat, circular, or oval ulcers, following vesicles. They are sometimes single, and may then be nearly half an inch in diameter; but more commonly they are clustered about the fore part of the tongue, or appear in successive crops. Their bases are smooth, greyish or yellowish, with very thin adherent slough; and their borders are well defined, not only by the cleanness with which the superficial layer of mucous membrane is removed, but by the bright crimson areola which surrounds them without elevation or hardness.

With these characters, there is usually active gastric or intestinal irritation. The healing of the ulcers will follow that of the irritation, but will be helped by the application of nitrate of silver in substance or strong solution.

Aphthous ulcers of the tongue may be confounded with the simple and the syphilitic, superficial ulcers. The safest distinctions will be found in their acuteness, the sloughs on their

bases, the bright areola, and the attendant active irritation of the stomach or intestines.

3. Mercurial ulcers of the tongue, such as occur in or after ptyalism, may generally be known at once, by the attendant affection of the gums, with pasty deposits at the teeth, by the peculiar fætor from the abundant decomposing saliva, by the general enlargement and sodden state of the tongue. In a former paper I have spoken of their treatment.

4. Strumous ulcers of the tongue (as I believe they may fairly be called) are rare. They occur most frequently in persons under 20, and I have not seen an instance after 30. Their usual chronic course is, that they commence in one or more lumps in the substance of the tongue, lumps that are deep-set, firm, compressible, elastic, ill-defined, and little, if at all, painful. With slow progress, each lump seems to proceed to central suppuration, and thence to ulceration. Hence is derived either a small irregular opening into the central cavity, or, more commonly, a larger irregular ulcer, with a flat tough base, unequally excavated, and with thick unequal overhanging margins. The ulcers may slowly extend, but they generally remain long stationary, just not healing; and the parts about them become thick, tough, and large, as if with chronic inflammation in all the adjacent textures of the tongue. Even after the ulcers are healed, I think the enlargement may increase, and produce a peculiar form of hypertrophy, with toughness, pallor, and an uneven scamed and scarred surface.

The likeness is evident between this disease, in all its essential features, and that which we recognise, in other parts, as strumous abscess and strumous ulceration. This is not merely chronic abscess, for abscesses of very slow progress do occur in the tongue, and when they are emptied they heal quickly, and the recovery is complete. But, on the other hand, these strumous diseases of the tongue differ from both the syphilitic and the cancerous (with which they are most apt to be confounded), by the ulceration being usually preceded by distinct suppuration. Other diagnostic characters are, that the induration that accompanies or precedes the strumous ulcers is never intense or well-defined; it is, rather, a toughness with diffuse enlargement, not nodular or warty, not painful, not usually accompanied with lymphatic disease. These characters, however, may be insufficient to distinguish strumous ulcers from those of inherited syphilis, to which I shall presently refer. The diagnosis may be assisted by the existence of other marked strumous affections, or, if not by these, by the test of treatment. Iodide of potassium will quickly heal the syphilitic ulcers; but will very slowly, if at all, do good to the strumous. The only remedies for these

are the same as for strumous disease, of similar type, in any other part; especially, I think, the cod-liver oil.

5. Syphilitic ulcers of the tongue occur in at least two very different forms, the superficial and the deep. The former are related, in their nearest analogy, to the cases of syphilitic psoriasis of the palms and soles; the latter to the deep ulcers which follow subcutaneous indurations (or gummata), such as one sees especially about the upper part of the leg, or more rarely in the lip or cheek. The superficial, occurring usually with similar disease of the lips, are among the later and most inveterate secondary symptoms; the deep are tertiary. In what measure any of them may be due to mercury or iodine, as well as to syphilis, I cannot say; but I have seen no reason to believe that either mercury or iodine alone will produce any of them.

(a.) Of the superficial ulcers, the most common are such as appear at the sides of the tongue. Some of these, indeed, may not deserve the name of ulcers; for they have thin coverings of epithelium, and do not bleed when even roughly touched. They may be like little oblique or starred fissures in the edge or tip of the tongue; or may appear as pale, bald, raw patches on the mucous membrane; or as such patches, with deeper ulceration at their centres; or, again, there may be single, flat-based, defined, and thin-bordered ulcers through nearly the whole thickness of the mucous membrane; and with any of these forms of the disease there may be round the ulcers little groups or clusters of florid prominent papillæ.

All the superficial syphilitic ulcers of the tongue are very sensitive and sore; but there is little increase of vascularity in or near them, except in cases of accidental complication, through gluttony, intemperance, or other exciting causes. In their long duration, nearly the whole surface of the tongue may become opaque-whitish, or pale purple, smooth, as if without papillæ, and fissured, and the whole organ may become large and thick.

Except the worst cases of cachectic syphilitic ulcers, I believe no affections of the kind are so nearly incurable among out-patients as these forms of disease of the tongue. Among those who cannot use the moist mercurial fumigation (and such are most out-patients), I believe that the best general plan is to give a grain of calomel and half a grain of opium every night, for not less than two months. This plan will certainly cure some, and do harm to none, and improve many whom it does not cure. For local applications, none seem to give more comfort than the occasional touching of the sores with the solid nitrate of silver, and the frequent washing of the mouth with a lotion containing one or two drachms of the diluted nitric acid in a pint of water.

I have already said that simple superficial ulcers of the tongue may generally be distinguished from the syphilitic, chiefly by the concomitant florid inflammation of the mucous membrane. Similar inflammation, accidentally associated with the syphilitic ulcers, may make the diagnosis doubtful; but the doubt is not practically important; for a rule holds here, as in many other cases, namely, that it is not advisable to give specific medicines while active inflammation accompanies specific disease. The inflammation must be treated first, then the specific disease; and in the case of superficial ulcers of the tongue, if they do not quickly heal when the inflammation passes by, the diagnosis of syphilis is made more clear.

(b.) In the case of the deep syphilitic ulcers, we can commonly see or hear of one or more preceding lumps of firm, inelastic indurations, well defined, enlarging the tongue, and covered with tense, adherent, smooth, and glossy mucous membrane. The usual seat of the induration is in the upper part of the tongue, often extending far back, but rarely affecting its borders or inferior surface, and still more rarely reaching the floor of the mouth. The induration may, for two or three weeks, only enlarge; under treatment it may clear away; but more commonly it softens, and then either sloughs or ulcerates at its centre. The ulcer which succeeds is deep, excavated, sometimes angular or cleft-like, with no regular form, bounded by the remains of the induration. Its borders may, at first, be ragged and sloughy; but they soon become smoother, and then appear as edges of thickened and hard mucous membrane, overhanging the cavity of the ulcer, and sometimes nearly meeting over it, so as to need to be parted that the cavity may be seen. In this state the ulcer has no great tendency to spread; its disposition is rather to become indolent, half-healing, with increasing toughness of its boundaries, but without material enlargement of the tongue.

(c.) Ulcers so like these that I can name no difference, may be found in the tongues of young persons that have had no primary syphilis. I have already said that I believe them due to inherited syphilis. These cases, therefore, differing from the last described only in their mode of origin, may neither need nor admit diagnosis from them; and the treatment of both is the same.

The other forms of ulcers of the tongue, with which these may be confounded, are the strumous, cancerous, and tuberculous. The diagnosis of the first has been already pointed out; that of the last will follow. From cancerous ulcers, the deep syphilitic may generally be known by their induration being less intense, not nodular; the mucous membrane over or near them smooth or glossy, not warty; their borders overhanging their bases, not everted or nodular; by the little pain that attends them if they are not inflamed; by

their being at, or tending towards, the dorsum of the tongue, rather than its sides or the floor of the mouth; by the absence usually of sympathetic disease; by their progress to ulceration occupying usually less than a month. Of course, a history of syphilis may help the diagnosis; but, the less it is relied on the better, unless other syphilitic affections be actually present. The age of the patient may also have some weight; the younger the less the probability of cancer.

If all these indications for the diagnosis fail, it may almost securely rest on the effect of treatment. Iodide of potassium will quickly cure, for a time, the syphilitic ulcer, but will have only a slight and transient influence on the cancerous one.

It is possible that a difficulty might happen in the diagnosis of syphilitic or other indurations, and fibrous or fibro-cellular tumours in the tongue. The distinction may be found in the tumours being of slower increase, moveable, and covered with healthy mucous membrane that slides over them.

6. Of cancerous diseases of the tongue one may observe two chief forms, both epithelial; namely, the superficial or papillary, and the deep-seated or massive; and, although cases may occur that confuse them, they are in general sufficiently distinct.

The superficial cancers before ulceration resemble most nearly the syphilitic condylomata and other diseases of the papillæ and mucous membrane, which will be mentioned in the next paper. The best distinctions will be found, generally, in that the cancers are more warty, or manifestly papillary or tuberculated, and more suddenly upraised and defined at their borders, than mere indurations of the mucous membrane are; and are more deeply seated in the very substance of the tongue, and thicker, (being seldom less than a quarter of an inch thick,) and have more defined and harder bases than the condylomata have. Generally, too, the cancers, even before ulceration, are attended with more afflux of blood to the adjacent parts of the tongue, and with a larger flow of saliva and more pain both in themselves and about the ear, and jaw, and side of the head, than any of the diseases that at all resemble them. In their ulcerated state, the superficial cancers have additional diagnostic signs in their central ulcerated surfaces, or fissures, or excavations, surrounded by well-defined induration, the extent and depth of which are not diminished by the extension of the ulceration. The base of the ulcer is generally hard and uneven, coarsely granular, papillary or nodulated; and the borders are, generally, lobed, like pieces of conglomerate gland, sinuous, upraised, and, if the disease is active, everted over the surrounding surface. If the case can be watched, all these characters become more marked, and others yet more distinctive are added; such as the fixity of

the tongue by the adhesion of the base of the ulcers to the adjacent parts, the enlargement and hardness of the submaxillary lymph-glands, a condition very rarely found with any other ulcer of the tongue, unless it be acutely inflamed. Late in the disease, too, there will be a cachectic aspect; but I have never seen this till the other signs of cancer were so well marked that there was no need of it for diagnosis.

The massive, deep-seated cancers of the tongue are very rare. Before ulceration, and while the mucous membrane is not involved, they may resemble the syphilitic lumps, or the fibro-cellular tumours, or, with far less likeness, the deposits that precede the strumous ulcers; but, of all these, I have already named the diagnostic signs.

I have little to say of the treatment of cancers of the tongue. As a general rule, it is right to remove them whenever this can be done safely and freely, and the écraseur is an admirable instrument for the operation.

7. Tuberculous ulcers of the tongue are rarer than any of those now described. The best case I have yet seen was in a policeman, 37 years old. Nearly the whole of the right lateral surface of the tongue was ulcerated. The outline of the ulcer nearly followed the borders of the tongue, but was in parts sinuous, or sharply eaten out. Its border was abrupt, neither elevated, nor everted, nor undermined, surrounded with a florid areola; at its base there was a slight elastic and pliant induration. The base of the ulcer was on the level of the superficial muscular fibres; appearing, in some parts, banded, as if the muscular tissue were exposed, in others granulated; only at its posterior part the base was more deeply excavated. The disease was painful, attended with profuse flow of saliva, and very difficult use of the tongue.

In six months, what seemed at first a little pimple had led to this condition. The characters of the ulcer were such as I had seen in no other disease of the tongue; they were very like those of tuberculous ulcers of the intestines; but it might have been impossible to distinguish the affection as tuberculous, if it had not been associated with pulmonary tuberculosis. With this the patient died; and the ulcerated part of the tongue, examined after death, showed no mark of cancerous disease, but exact resemblance to distinct tuberculous ulceration of the vocal cords.

NOTES OF
PRACTICE AMONG THE OUT-PATIENTS OF
ST. BARTHOLOMEW'S HOSPITAL.

By JAMES PAGET, F.R.S.

Assistant-Surgeon to the Hospital.

NO. VI.—ON THE DIAGNOSIS AND TREATMENT
OF SOME DISEASES OF THE MUCOUS MEM-
BRANE OF THE TONGUE.

IN the last paper I wrote of the various forms of ulcer of the tongue; in this I propose to write, very briefly, of the diseases, other than ulcers, of its mucous membrane, which the out-patients' room most frequently presents for study. They may be thus enumerated:—

1. Baldness. 2. Fissures. 3. Warts. 4. Condylomata.
5. Hypertrophy of mucous and submucous tissues. 6. Opaque white thickening.

1. The surface of the tongue not rarely presents patches of "baldness," as it may be called. If the rest of the tongue be clean, and naturally papillary, these patches appear smooth and glossy; or, if the rest be coated, they appear clean, as if the coating would not adhere to them. They are usually oval, and well defined, without thickening or ulceration, or any other apparent change of structure. They are, I believe, always patches of psoriasis, and, in the majority of cases, they indicate syphilis. They often coincide with syphilitic psoriasis of the palms. They may look like ulcers, but they yield no blood, even when roughly scraped. Their appropriate treatment is that of psoriasis.

2. Fissure-like ulcers of the tongue were described in the last paper; but the edges of the tongue often present clefts half a line or more in depth, which look like ulcers, but have perfect mucous membrane and epithelium, and neither bleed nor give pain when scraped. Such clefts may be often seen in company with psoriasis; but they may exist

alone, and indicate no constitutional disease. Indeed, in some healthy persons, a great part, or nearly the whole of the tongue, may have its surface thus fissured—a kind of irregular network of narrow grooves or cracks traversing it, like an exaggeration of the reticular grooving of the skin. The appearance is, practically, worth notice only that it may not be mistaken for disease.

3. Warts (*verrucae*, or *condylomata acuta*) are rare on the tongue; but they do occur, and their diagnosis need be known. They may be mistaken for syphilitic condylomata (*C. lata*), or for the warty growths that may precede, or may be, cancer. They may be known chiefly by their bright, florid hue, their being upraised on comparatively narrow bases, or even on pedicles, their deeply cloven surfaces covered with small pointed prominences, and often by their being evidently composed of clustered smaller growths, which are distinct down to the common base from which they spring.

The obvious treatment for such warts is excision, including a small piece of the mucous membrane on which they rest.

4. Condylomata are, among out-patients, the commonest of the diseases of the mucous membrane of the tongue that are not attended with ulceration. They are, I believe, always of syphilitic origin, occurring most frequently during the early secondary symptoms, with psoriasis, or with the superficially ulcerated patchy or condylomatous palate and fauces, or with condylomata at the anus or external female organs. In rare cases, the affection of the tongue may precede that of the skin.

In some instances of condylomata the surface—especially the upper surface—of the tongue presents small oval or irregular, slightly elevated patches, which are smooth and opaque white, as if the epithelium in those places were thickened and made opaque. In other instances, the condylomata are circumscribed and gradually elevated largely papillary portions of mucous membrane, like the ordinary condylomata at the anus. The two conditions are, probably, only different forms of the same disease: in the latter, the enlargement of the papillæ, in the former, the increase of the epithelium, predominates; but both these constituents of disease exist in both.

The diagnosis of condylomata of the tongue is rarely difficult. In the last paper (p. 502) I mentioned the characters by which they may be distinguished from cancerous papillary growths; those most to be relied on being their gradual and nearly level elevation, their pale whitish surface, and rather low vascularity, the absence of induration at and beneath

their bases, and the usual absence of pain. These characters, also, will usually suffice for the diagnosis of condylomata from all the other diseases mentioned in this paper. Moreover, in a large majority of cases, the diagnosis will be certified by the co-existence of characteristic syphilitic eruptions, or by their having just preceded or quickly following the condylomata. But instances are met with in which condylomata exist alone, and long after all other signs of syphilis have disappeared from even the patient's memory: in these, the diagnosis must depend on the actual appearances of the disease.

And here I would observe how great is the need that students should learn in large practices, whether at Hospitals or in private, all the characters of syphilitic diseases so thoroughly as not to require the help of any statements from the patients. For many patients are unwilling, and those that would be willing are often unable, to tell the truth in these cases. Women in the middle and higher ranks of society, when they have syphilis, are generally ignorant of it, and must be allowed to remain without even such a suspicion as would be suggested by their being asked about it. Or, when a patient knows the truth, his account of it may only deceive: for cancerous disease may (as I have at least three times seen it) appear in the residues of syphilitic disease.

5. There sometimes occurs a disease of the mucous and sub-mucous membranes of the tongue, which, though in many respects like condyloma, is yet different in all its relations and progress, and in many points of structure. This appears to consist in thickening of patches of the mucous and sub-mucous tissue, sometimes, but not always, associated with overgrowth of the papillæ. The diseased portions are thick, and upraised one or two lines; their substance, not hard like cancer, is firm and tough, flexible and elastic; their surface is usually pale; it may be smooth and glossy, but is in some cases granular, and in some coarsely papillary and fissured. The end of the tongue may be covered, and as it were encased, with mucous membrane thus diseased; or the change may exist in one or more distinct patches on the side or dorsum of the tongue. No pain may be felt; but the thickening and toughening of the diseased parts may make the tongue clumsy and the speech thick.

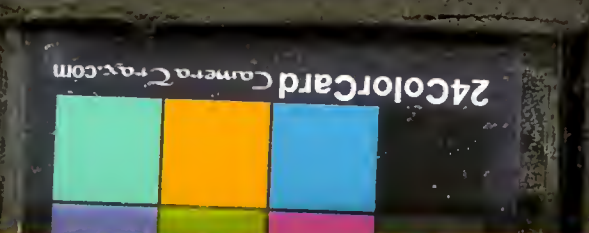
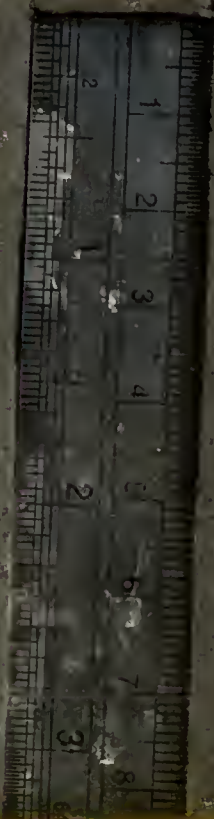
In the diagnosis of this disease, the main reliance must be on the toughness and brawny feel of the affected parts, which distinguish them, on the one hand, from condyloma, in which the natural feeling of the tongue is scarcely changed; and, on the other hand, from cancer, in which hardness, rather

than toughness, is felt. Besides, there is usually more of wartyness in both of those diseases than in this.

This disease may be of syphilitic origin; but I do not remember to have seen it associated with any other signs of syphilis; and, in some instances, there has been no reason to assign it to such a cause, or, indeed, to any marked constitutional condition. All the cases that I have had to treat have been either benefited or cured with iodide of potassium, taken in three-grain doses three times a-day, and applied in lotions, containing from a scruple to a drachm in the ounce of water. But I have seen the disease cover so large a portion of the tongue, that it was thought to require an operation. All the diseased layer was sliced off, and the patient, I believe, remained well.

6. One more morbid appearance may be here noticed; that, namely, of small, pearly-white patches of mucous membrane, the scars of former superficial ulcers. They are very like the "white patches" that are so frequent on the surface of the cardiac pericardium, and may remain for many years, and do no harm.

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